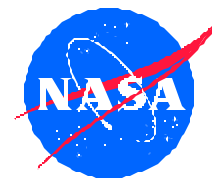


Pulse Power Thyristors (PPTs) for Aerospace



*Power Technology South (PTS) Company
Raleigh, NC*

INNOVATION

New opening and closing switch thyristor capable of unlimited di/dt blocking up to 40,000 volts

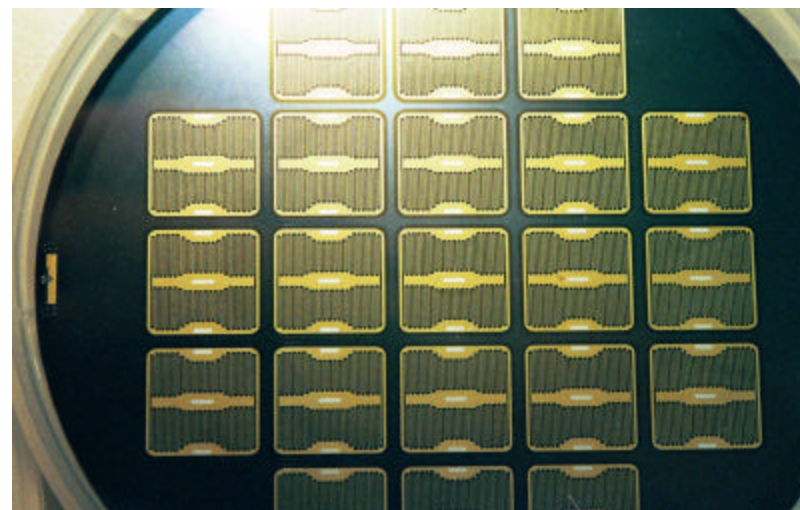
ACCOMPLISHMENTS

- ◆ Developed opening and closing switch thyristors with unlimited di/dt, blocking up to 40,000 volts in low cost plastic packages
- ◆ Developed practical use of "Pulse Power Technology" in FAA Certified ignition, Thyristor replacement, Laser Fusion, Electroporation and etc.

COMMERCIALIZATION

- ◆ Arrays of the PPTs has been used to replace Thyratrons
- ◆ PPTs currently used to replace spark gap switches in FAA Certified exciter/igniter systems to start jet engines
- ◆ PTS has allied with three major power semiconductor producers for an assured supply of PPTs
- ◆ Private capital investment has been secured to fund several new PPT applications
- ◆ As a result of this SBIR PTS Company is able to continue to exist as a commercial company

Glenn Research Center
Space Power
3-080



PPT Wafer

GOVERNMENT/SCIENCE APPLICATIONS

- ◆ New Government and Commercial Turbine starters use the new PPT technology
- ◆ Stacks of PPTs are used to replace Thyratron tubes
- ◆ PPT stacks are also used to initiate Inertial Confinement Fusion in the "NRL Electra" application

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NASA Contact – Gene Schwarze
Company Contact – John Driscoll